



Highway Maintenance Products



Densoband

Denso Paving Tape

Denso Overbanding Tape

Densoband Primers

Winn & Coales (Denso) Ltd

Chapel Road, London SE27 0TR

Tel: 020 8670 7511

Fax: 020 8761 2456

Website: www.denso.net

Email: mail@denso.net

Densoband

**Flexible preformed modified bitumen strip
for sealing joints in hot asphalt base
and wearing courses
to asphalt, concrete or road castings.**

Approvals

Literature

Project List

Project Histories

Densoband Approvals

British Airport Authority:

Reference Specification, Section 14
- Bituminous Materials Aircraft Pavements

Volume 1- Specification For Highway Works (Amendment May 2001):

Series 900

Road Pavements - Bituminous Bound Materials
Clause 901 - Bituminous Roadbase and Surfacing Materials

Series 1000

Road Pavements - Concrete and Cement Bound Materials
Clause 1017 - Joint Seals



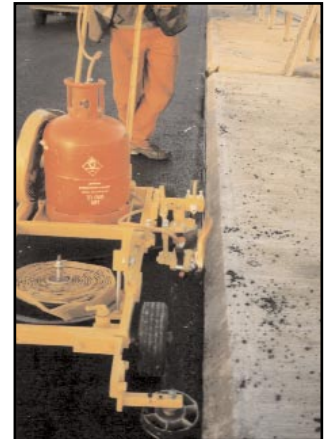
HIGHWAY MAINTENANCE PRODUCTS



Tramways and light railway.



Tough and conformable bond.



Application by machine.



Roads and bridges.



Airport runways.

DENSOBAND

A polymer modified bitumen strip with a disposable interleaving for sealing joints in hot asphalt base and wearing courses to asphalt, concrete or road castings in road repair or construction. Its flexible properties make it particularly suitable as a seal on bridge and flyover expansion joints. It is also used for airport runway repairs and light railway/tram system repair or construction where it forms a flexible seal between the track and the surrounding asphalt.

Densoband forms a flexible watertight seal which allows for road movement from traffic load and thermal changes thereby preventing cracking and the subsequent erosion of the joint by weathering and pollution.

- **Minimises return maintenance visits**
- **Uniform flexible seal for base and wearing course joints**
- **Adheres to asphalt, concrete and ironware**
- **Withstands road movement from traffic load and thermal changes**
- **23 years use in Europe**
- **Complies with Department of Transport Specification for Highway Works, 7th Edition**
- **Used in road, tramway, railway and airport runway repair and construction**

Product Data

Size: 8mm x 45mm*

8mm x 55mm*

Roll length: 12 metre

Size: 15mm x 45mm*

15mm x 55mm*

Roll length: 6.5 metre

Packaging: 3 rolls per carton

*Other sizes can be made to order

Note: The 15mm thickness is needed only where excessive movement is anticipated: e.g. at concrete/asphalt joints.

The Densoband application machine is available on request.



LEADERS IN SEALING PRODUCTS

DENSOBAND

INSTRUCTIONS FOR USE

Note:

Densoband should only be applied in conjunction with hot laid asphalt.

Joint Surface

The joint surface should be sawn for preference to present an even vertical face throughout its length.

Cleaning (see Diagram 1)

Do not apply Densoband to wet or oil contaminated surfaces.

- Asphalt, concrete, kerbstone surfaces:
Clean with a stiff broom or wire brush to remove all dust, dirt, debris.
- Metal surfaces such as road castings:
Wire brush to remove all loose rust, dirt, etc.

Priming (see Diagram 2)

Apply Densoband Primer to the vertical joint face and allow to dry.

Applying Densoband (see Diagrams 3 & 4)

- Cut Densoband to length.
- Remove interleaving paper
- Heat one surface of the Densoband with a gas torch.
- Apply the molten surface to the primed face using the applicator spatula or similar tool to assist adhesion.
Densoband should stand 5mm proud of the existing road surface. Trim flush to metal.
- Mitre Densoband into corners of right angle joints.

Compaction

After laying and levelling the new wearing course asphalt, the first pass of the roller should be along the joint edges, compacting the Densoband to form a 'rivet head'.

Health and Safety Advice.

Densoband contains petroleum products which may affect the skin. Users are advised to:

- Ensure adequate ventilation during application.
- Wear gloves and protective clothing to protect against burns.
- Apply suitable barrier cream before working. In cases of contact with hot compound immerse in cold water.
- Wash thoroughly after use or before work breaks to remove compound from the skin.
- Avoid use of diesel or other solvents for cleaning the skin.
- Change clothing when soiled.

Densoband Primer contains petroleum products which may affect the skin. Users are advised to:

- Avoid using in confined areas without air circulation.
- No smoking.
- Use barrier cream and gloves. Avoid prolonged contact with the skin.
- Wash hands after use.
- Change soiled clothing.

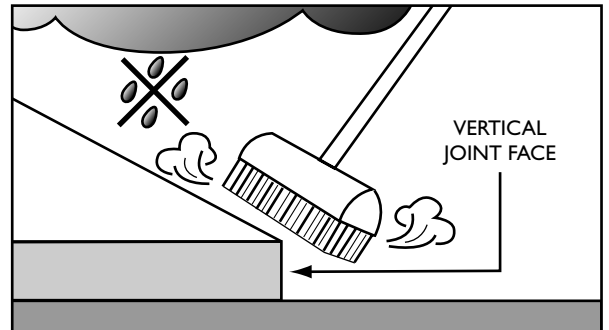


Diagram 1.

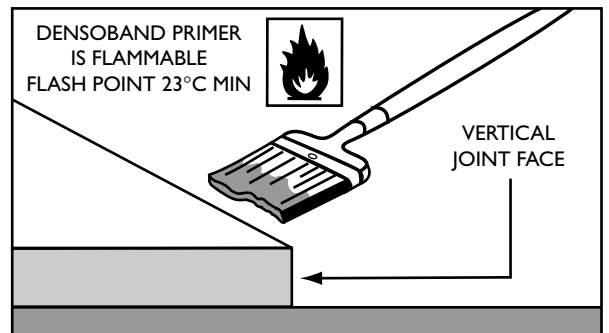


Diagram 2.

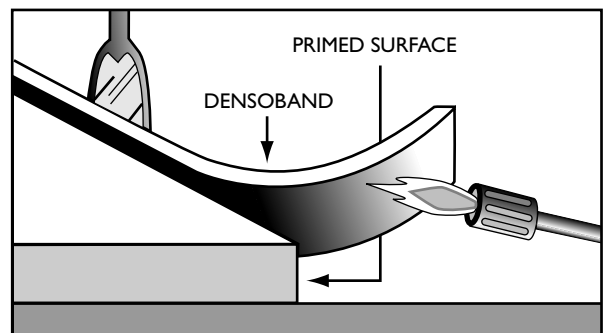


Diagram 3.

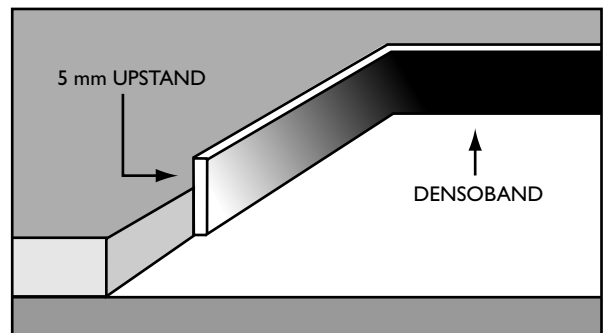


Diagram 4.

Winn & Coales (Denso) Ltd

Denso House, Chapel Road, London SE27 0TR

Tel: 020 8670 7511 Fax: 020 8761 2456

Email: mail@denso.net

Website: http://www.denso.net



Certificate No. FM 01548
BS EN ISO 9002 1994

DENSOBAND

DESCRIPTION A hot applied preformed sealing strip wound, in reel form, on wider width disposable interleaving. For sealing joints between asphalt to asphalt, concrete and road castings in road construction and bridge expansion joints. It is also used for airport runway joints and light railway/tram construction to form a flexible seal between the track and the surrounding asphalt.

Densoband forms a flexible watertight seal accommodating slight movement from cyclic loads and thermal changes thus preventing cracking and the subsequent erosion of the joint by weathering.

COMPOSITION A polymer modified bitumen compound in strip form containing filler, a flow control additive and a root poison.

TYPICAL PROPERTIES	DATA
Colour	Black
Specific Gravity	1.5
Softening Point	135°C
Flexibility	Excellent
Adhesion	Excellent – to primed surface
Resistance to Acids, Alkalis and Salts	Excellent
Temperature Range <i>For Application</i> <i>For Service</i>	5°C to 50°C -20°C to 80°C
Thickness	8mm
Width	45mm or 55mm
Length	12m
Thickness	15mm
Width	45mm or 55mm
Length	6.5m

APPLICATION METHOD	Manually or by machine (details available on request).
---------------------------	--

RECOMMENDED PRIMER	Densoband Primer
---------------------------	------------------

Important

Winn & Coales (Denso) Ltd pursue a policy to develop and continually improve all of our products and therefore the information given in this data sheet is intended as a general guide and does not constitute a warranty of specification. However, our sales personnel are committed to assist the user in establishing the suitability of the product for its intended purpose and additional specific information is available on request.

Winn & Coales (Denso) Ltd operate a Quality Management System registered to BS EN ISO 9002 1994 (Certificate No. FM01548).

Winn & Coales (Denso) Ltd, Denso House, Chapel Road, London SE27 0TR, United Kingdom
Tel: +44 (0) 20 8670 7511 Fax: +44 (0)20 8761 2456 Email: mail@denso.net Website: www.denso.net

Densoband - Project List

Approx Date	Site Address	Client	Contractor	Application
2001	Gatwick Airport	British Airports Authority	Shaw-Seal Ltd	As joint seal in runway repairs
2001	Rockingham Speedway	Nascar	Morrisons Construction	As flexible joint between steelwork and concrete on terraces
2001	M25 Clacket Lane	Highways Agency	Fitzpatrick Contractors	As watertight joint between concrete and asphalt
2000	Wirral Tramway	Wirral Borough Council	Wirral Borough Council	As flexible sealant between tram rails and asphalt surround
2000	Tyne Bridge	Newcastle Upon-Tyne City Council	Cumbrian Industries Ltd	As joint seal between asphalt footpaths and metal side rails
1999	M55/M6 Link Road	Highways Agency	Balfour Beatty	As joint seal in resurfacing work
1996	Sheffield Supertram	South Yorkshire Supertram Ltd	Balfour Beatty	As flexible waterproof seal between concrete tram track bed and asphalt surround
1996	Blackpool Tram System	Blackpool Borough Council	Tarmac Quarry Products Ltd	As flexible seal between rails and asphalt wearing course
1995	A4 Hammersmith Flyover	Frank Graham & Partners	Amey Construction	As concrete kerb to asphalt joint seal
1995	Dee Crossing Connahs Quay Clywd, Wales	Welsh Office	Norwest Holst/Keir Joint Venture	As kerb edge to asphalt joint seal
1995	Stratford Station London E15	British Rail	Hochtief (UK) Construction	As mastic asphalt to concrete joint seal
1995	Bradford Transperance Museum	Mertz McLelland	Turner Construction	As tram rail to asphalt joint seal

Densoband - Project List

Approx Date	Site Address	Client	Contractor	Application
1995	M53 Juncions 7 to 8	Cheshire CC (DOT)	Birse Construction	As kerb edge to asphalt joint seal
1995	A406 Lea Valley Viaduct	Sir Frederick Snow & Partners	Edmund Nuttal Wimpey Minerals	As kerb to asphalt joint seal
1995	Edinburgh Airport East Apron	British Airport Authority	Edmund Nuttal	As concrete apron to asphalt joint seal
1995	Glasgow Airport East Pier Apron	British Airport Authority	Edmund Nuttal	As concrete apron to asphalt joint seal
1994	Heathrow Airport East Apron	British Airport Authority	Trafalgar House Construction	As concrete apron to asphalt joint seal
1994	M5 Strengthening Works	Somerset CC	Camas Associated Asphalt	As concrete to asphalt seal
1994	A1 Longbennington By-Pass	Nottinghamshire CC (DOT)	SIAC	As concrete kerb to asphalt seal in lay-bys
1994	Harrowden Bridge	Bedfordshire CC (DOT)	Wrekin Construction	As concrete kerb to asphalt joint seal
1994	A46 from A606 Nottinghamshire	Nottinghamshire CC (DOT)	Shanks & McEwan	As slip road kerb to asphalt joint seal
1994	M1 Junction 13 Tingrith	Bedfordshire CC (DOT)	Redlands	As kerb edge to asphalt joint seal
1994	M25 & M26 Interchange	Kent CC (DOT)	ARC Surfacing	As concrete drainage channel to asphalt joint seal
1993	Pen-Y-Clip Tunnel	The Welsh Office	Laing Civil Engineering	As waterproof seal between wearing course and concrete kerb
1993	A11 Phase 2	Cambridgeshire CC (DOT)	Roadworks (1952) Technaseal	As joint between extruded concrete drainage channel and asphalt
1993	A45 (Quy) Cambridgeshire	Cambridgeshire CC (DOT)	Amec Civil Engineering	As joint between concrete and asphalt below road surface
1993	Taxiway 23/05 Heathrow Airport	British Airport Authority	Costain Civil Engineering	As joint between concrete runway and asphalt taxiway

Densoband - Project Story

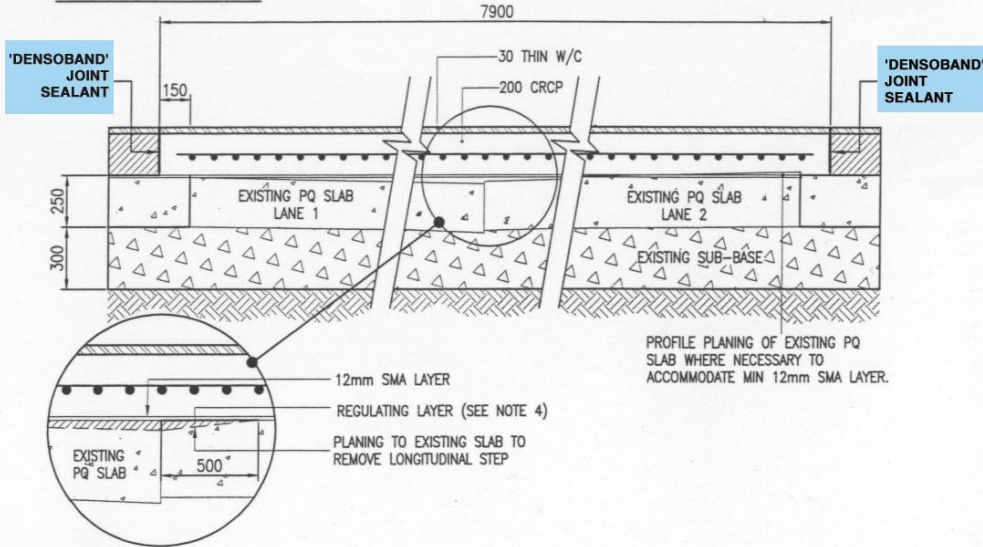
M25 Clacket Lane to Junction with M26

Application: Asphalt base course to new concrete pavement joint

Contractor: Fitzpatrick Contractors



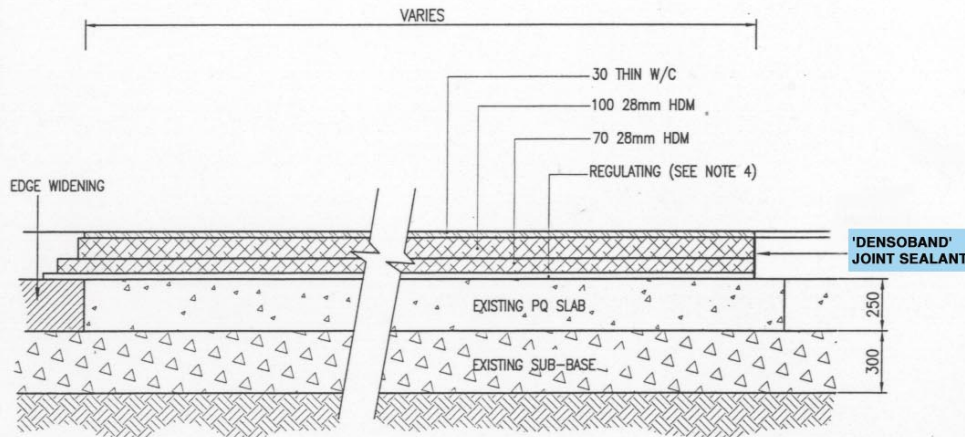
PAVEMENT TYPE P1



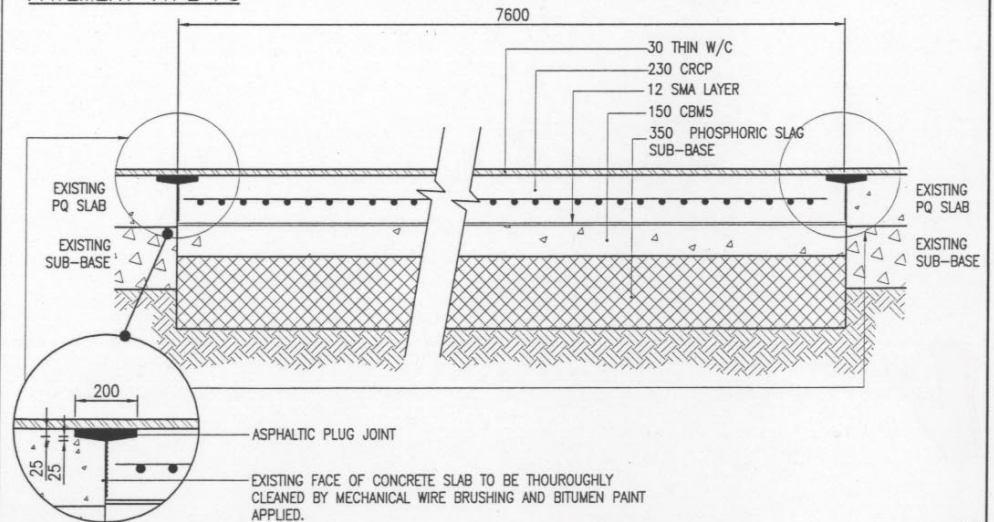
NOTES

1. ALL DIMENSIONS IN MILLIMETERS
2. REFER TO PAVEMENT OPTIONS IN APPENDIX 7/1 FOR DETAILS OF PAVEMENT CONSTRUCTION
3. REFER TO PAVEMENT PLANS DRG.No BW5001/R/5117/701 to 704.
4. REGULATING DETAILS AS FOLLOWS:
 0-25mm = SMA REGULATING MATERIAL TO CLAUSE 970 AR
 25-40mm = SMA REGULATING MATERIAL TO CLAUSE 970 AR
 40-70mm = SMA REGULATING MATERIAL TO CLAUSE 970 AR
 >70mm = HDM ROADBASE TO CLAUSE 930

PAVEMENT TYPE P2



PAVEMENT TYPE P3



A3

Rev.	Description	By	Date	Chk'd	Auth	Purpose of issue	Rev	Date	Authorised
						FOR TENDER		7/10	[Signature]

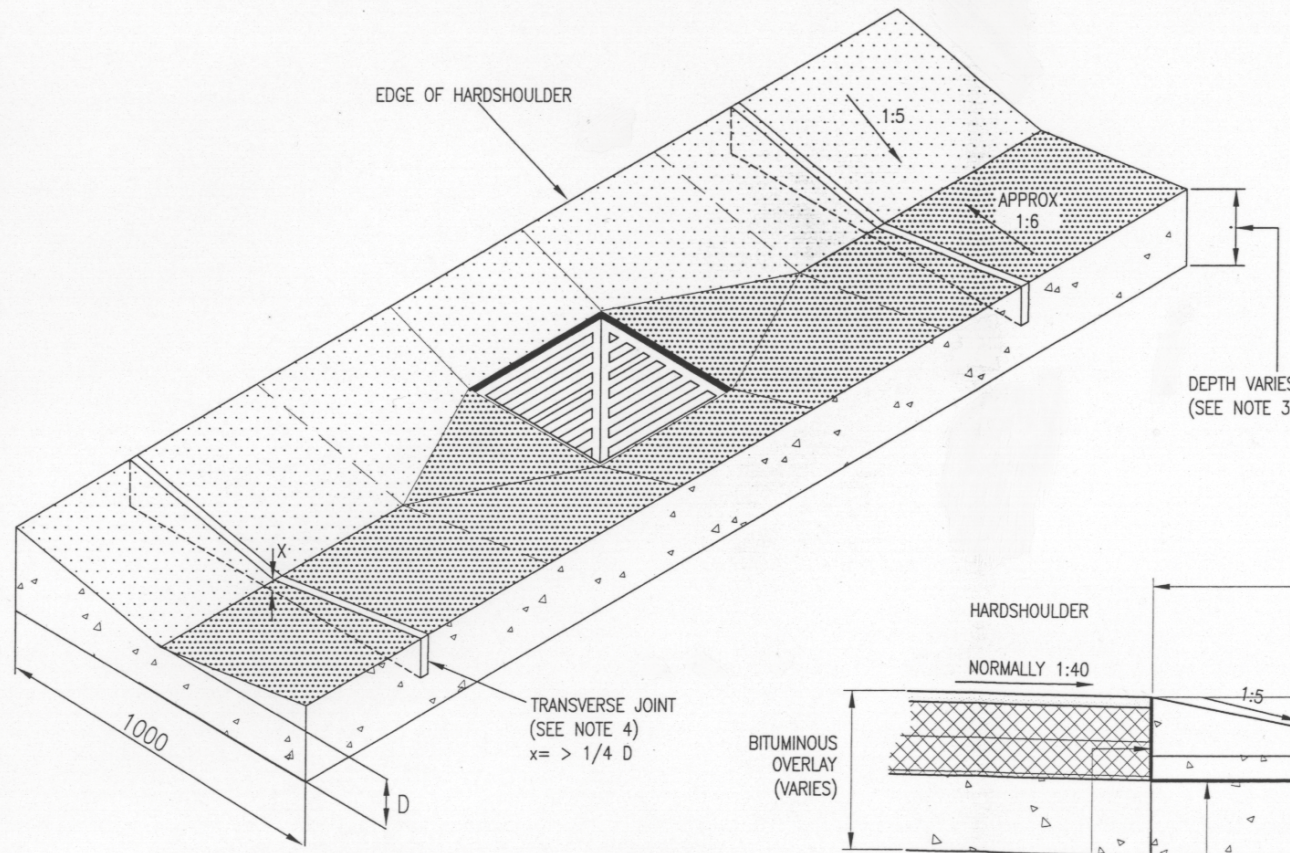
WS Atkins Transportation Engineering
 5 The Courtyard, Campus Way
 Gillingham Business Park
 Gillingham, Kent
 MEB ONZ
 Fax (01634) 387887
 Tel. (01634) 361361



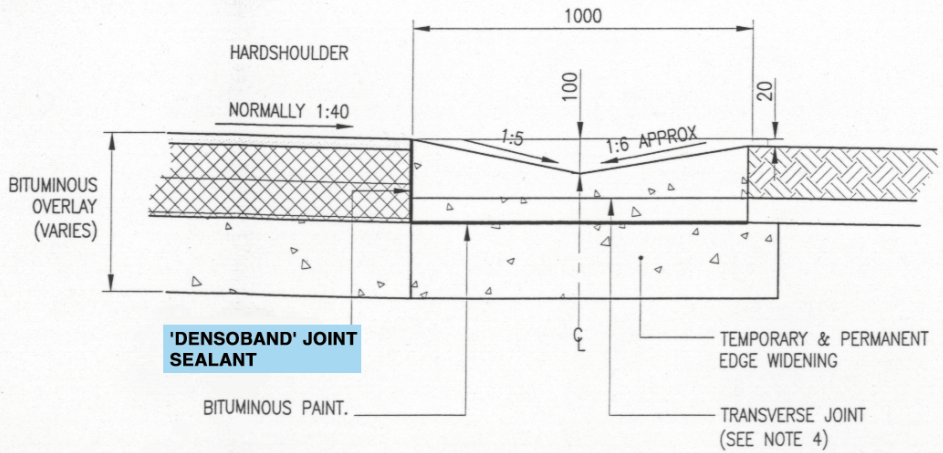
Project		M25 JUNCTION 5 TO CLACKETS LANE			
Title		PAVEMENT TYPES P1, P2, P3 & TYPICAL DETAILS			
Scale	Drawn	Checked	Authorised	Drawing Number	Rev
1:25	GDH	SD	[Signature]	BW5001/R/5117/711	
Date	Date	Date	Date		
9/09/00	9/09/00	7/10			

NOTES.

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
2. CONCRETE TO CHANNEL TO BE GRADE C40 TO CLAUSE 1001 WITH AIR ENTRAINMENT TO CLAUSE 1002 OF S.H.W. CHANNELS SHALL COMPLY WITH RECOMMENDATIONS OF BS 5931.
3. DEPTH OF SLIP FORMED DRAINAGE CHANNEL SHALL VARY TO SUIT LEVELS OF BITUMINOUS OVERLAY IN HARD SHOULDER.
4. TRANSVERSE JOINTS SHALL BE SAWN OR WET FORMED TO A MINIMUM DEPTH OF 25mm BELOW CHANNEL INVERT OR TO A MINIMUM DEPTH OF ONE QUARTER OF THE CHANNEL SECTION AT ANY POINT WHICH EVER IS THE GREATER. JOINTS SHALL BE SEALED IN ACCORDANCE WITH CLAUSE 1017 OF S.H.W. THE SPACING OF JOINTS SHALL BE 5000mm.
5. EXPANSION JOINTS ARE TO BE FORMED AT 25m INTERVALS.
6. FOR LOCATION OF INSITU DRAINAGE CHANNEL SEE DRG.No. BW5001/R/5117/1101 TO 1104.



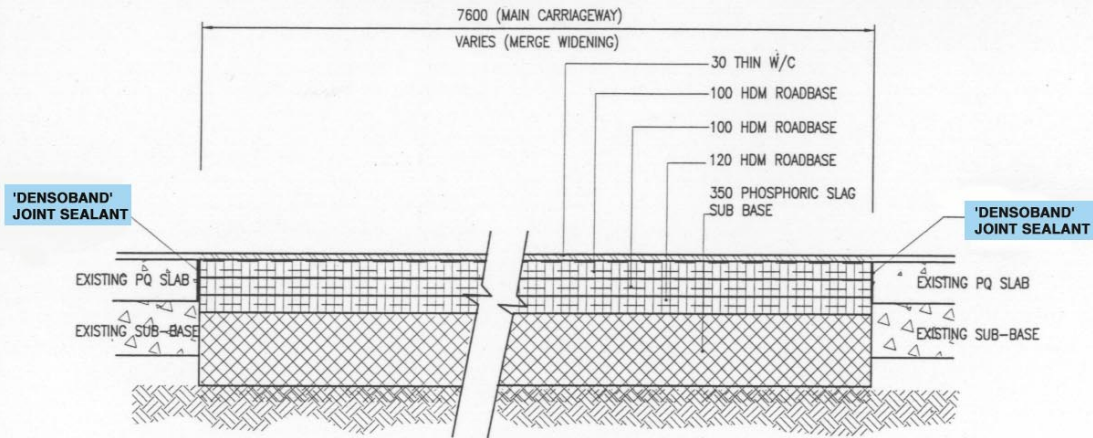
ISOMETRIC VIEW SHOWING TYPICAL ARRANGEMENT OF THE GILLY GRATING



'DENSOBAND' JOINT SEALANT

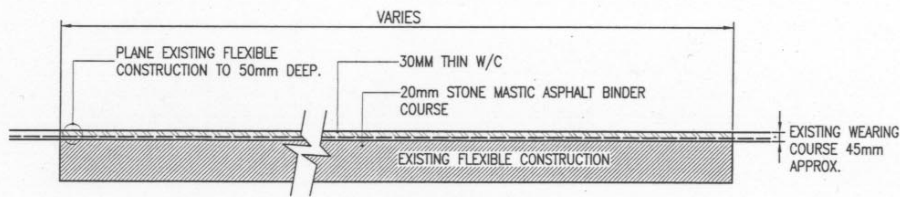
A3

Rev.	Description	By	Date	Chk'd	Auth	Purpose of issue	Rev	Date	Authorised	Client	Project	Title	Scale	Drawn	Checked	Authorised	Drawing Number	Rev
										WS Atkins Transportation Engineering 5 The Courtyard, Campus Way Gillingham Business Park Gillingham, Kent MEB ONZ Fax (01634) 387887 Tel. (01634) 361361	M25 JUNCTION 5 TO CLACKETS LANE	INSITU FORMED CONCRETE DRAINAGE DETAILS	1:15	GDH	(Signature)	(Signature)	BW5001/R/5117/522	
											HA HIGHWAYS AGENCY			7/9/00	2/10	28/10		
						TENDER ISSUE			(Signature)									

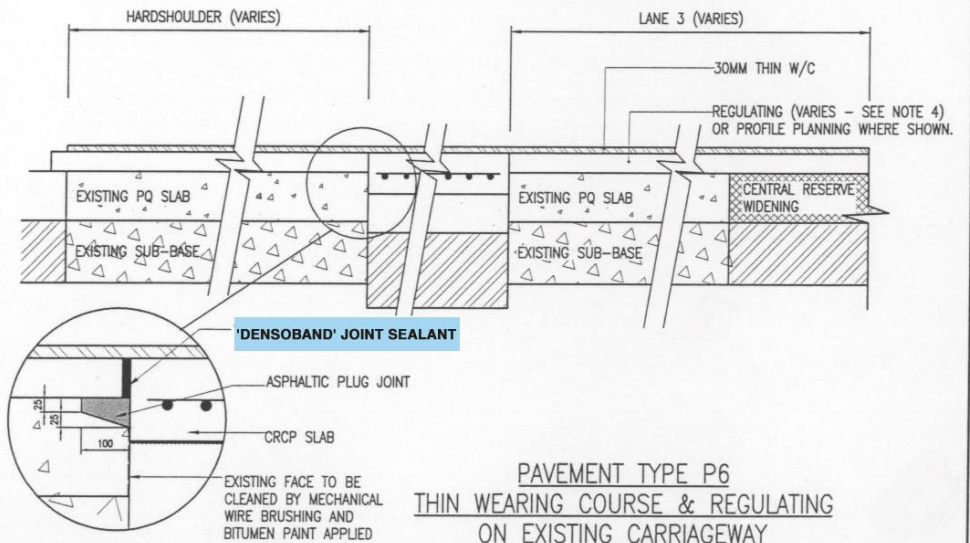


PAVEMENT TYPE P4
FULL DEPTH RECONSTRUCTION IN
FLEXIBLE MATERIALS

- NOTES**
1. ALL DIMENSIONS IN MILLIMETERS
 2. REFER TO PAVEMENT OPTIONS IN APPENDIX 7/1 FOR DETAILS OF PAVEMENT CONSTRUCTION
 3. REFER TO PAVEMENT PLANS DRG.No BW5001/R/5117/701 to 704.
 4. REGULATING DETAILS AS FOLLOWS:
 0-25mm = SMA REGULATING MATERIAL TO CLAUSE 970 AR
 25-40mm = SMA REGULATING MATERIAL TO CLAUSE 970 AR
 40-70mm = SMA REGULATING MATERIAL TO CLAUSE 970 AR
 >70mm = HDM ROADBASE TO CLAUSE 930



PAVEMENT TYPE P5
PLANE EXISTING FLEXIBLE
CONSTRUCTION & INLAY



PAVEMENT TYPE P6
THIN WEARING COURSE & REGULATING
ON EXISTING CARRIAGEWAY

A3

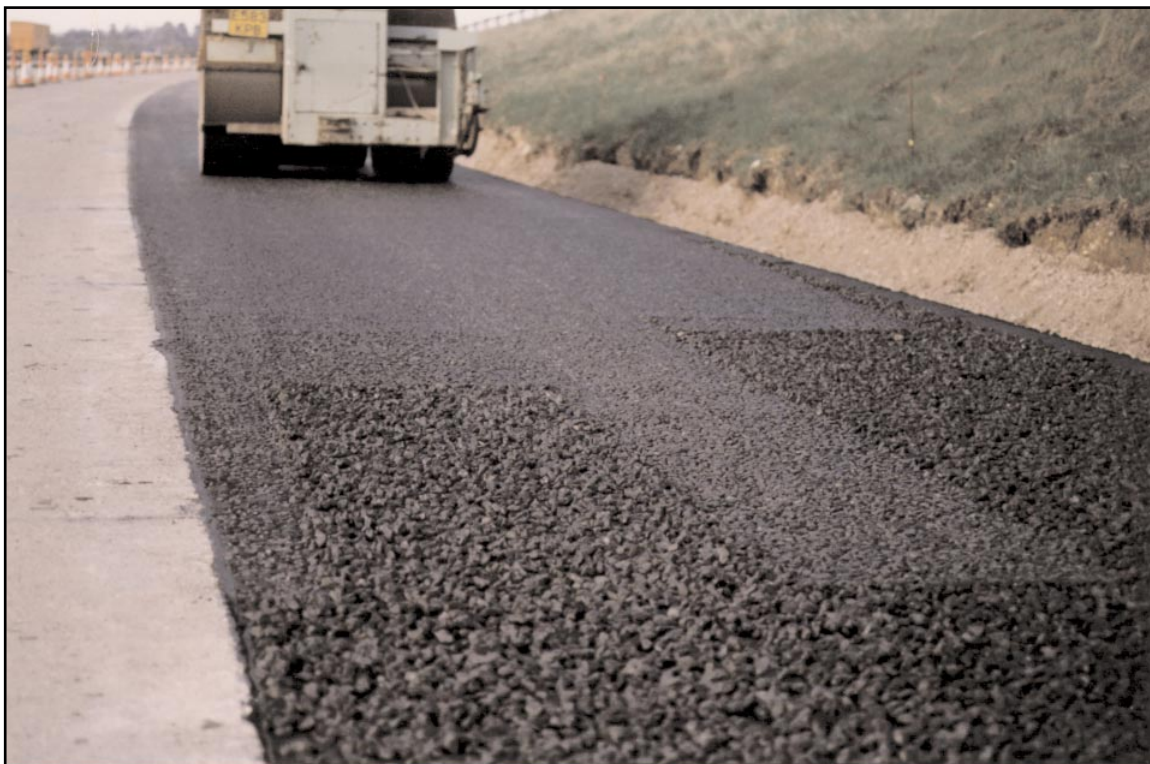
Rev.	Description	By	Date	Chk'd	Auth	Purpose of issue	Rev	Date	Authorised	Project	Scale	Drawn	Checked	Authorised	Drawing Number	Rev	
						FOR TENDER	-	7/10	PM	WS Atkins Transportation Engineering 5 The Courtyard, Campus Way Gillingham Business Park Gillingham, Kent ME8 0NZ Client:	M25 JUNCTION 5 TO CLACKETS LANE PAVEMENT TYPES P4, P5 & P6 & TYPICAL DETAILS.	1:25	MJF	SD	PM	BW5001/R/5117/712	
										Fax (01634) 387887 Tel. (01634) 361361							
										HIGHWAYS AGENCY							
										Date 9/9/00 Date 29/9/00 Date 2/10							

Densoband - Project Story

M11 Motorway - Harlow to Bishops Stortford

Application: Hot rolled asphalt hard shoulder to concrete carriageway joint.

Client: Essex County Council



HIGHWAY MAINTENANCE
PRODUCTS



HIGHWAY MAINTENANCE
PRODUCTS

Densoband - Project Story

M1 Motorway - Watford Section

Application: Hot rolled asphalt to surface water channel joint.

Client: Hertfordshire County Council

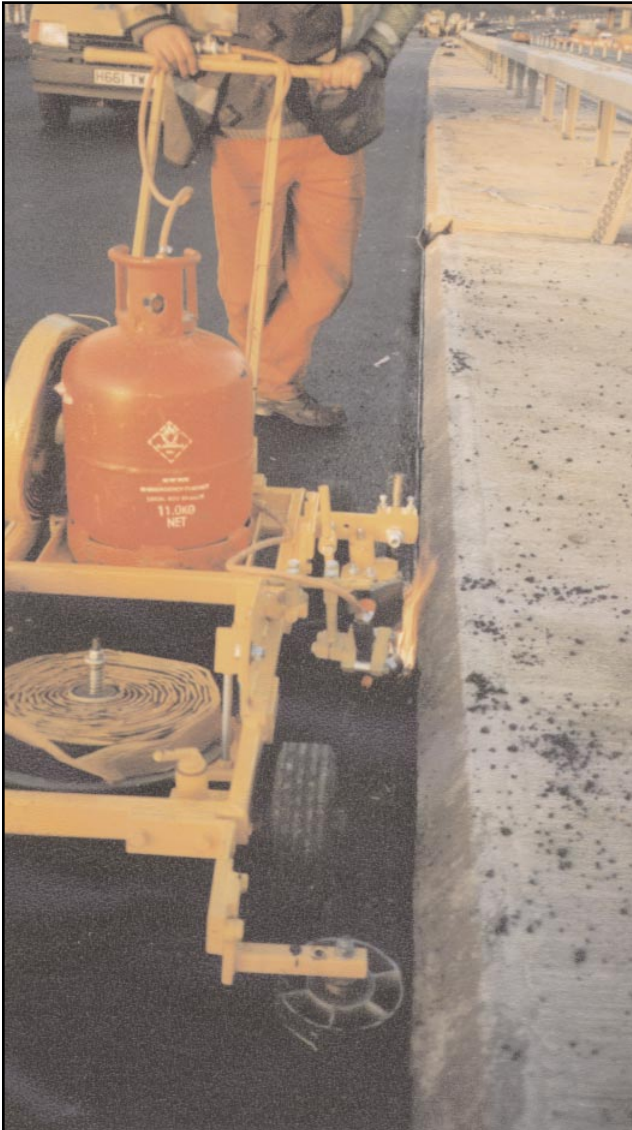


Densoband - Project Story

M56 Weaver Viaduct, Cheshire

Application: Hot rolled asphalt to concrete kerb joint, applied by machine.

Client: Cheshire County Council **Contractor:** ARC



Densoband - Project Story

M56 Weaver Viaduct, Cheshire

Application: Hot rolled asphalt to concrete kerb joint, applied by machine.

Client: Cheshire County Council **Contractor:** ARC



Densoband - Project Story

M25 Motorway - South Mimms Section

Application: Hot rolled asphalt to water surface channel joint

Client: Hertfordshire County Council



Densoband - Project Story

M40 Extention - Bridges

Application: Hot rolled asphalt to expansion rail, kerb and drain joints.

Consultant: Ove Arup & Partners



Densoband - Project Story

M40 Extention - Bridges

Application: Hot rolled asphalt to expansion rail, kerb and drain joints.

Consultant: Ove Arup & Partners



HIGHWAY MAINTENANCE
PRODUCTS



HIGHWAY MAINTENANCE
PRODUCTS

Densoband - Project Story

Sheffield Supertram - 1996

Contractor: Balfour Beatty **Client:** South Yorkshire Supertram Ltd & Sheffield City Council

Application: Densoband flexible sealing strip used to form a waterproof seal between 60km of concrete tram rail bed and surrounding hot rolled asphalt wearing course road surface.



1. Densoband laid out against primed vertical surface of concrete tram rail bed prior to application.



2. Hot application to vertical face of concrete tram rail bed.

Densoband - Project Story

Sheffield Supertram - 1996

Contractor: Balfour Beatty **Client:** South Yorkshire Supertram Ltd & Sheffield City Council

Application: Densoband flexible sealing strip used to form a waterproof seal between 60km of concrete tram rail bed and surrounding hot rolled asphalt wearing course road surface.



3. Hot rolled asphalt wearing course is laid directly up to the Densoband which fuses with it to form a durable seal.



4. Wearing course is rolled to form a smooth, even road surface.

Densoband - Project Story

Sheffield Supertram - 1996

Contractor: Balfour Beatty **Client:** South Yorkshire Supertram Ltd & Sheffield City Council

Application: Densoband flexible sealing strip used to form a waterproof seal between 60km of concrete tram rail bed and surrounding hot rolled asphalt wearing course road surface.



5. Flexible waterproof joint between wearing course and rail bed will withstand extreme weather and temperature conditions.



6. Supertram in operation.

Densoband - Project Story

Blackpool Tram - 1996

Application: a flexible joint seal between tram rails and new asphalt wearing course.
Client: Blackpool Borough Council **Contractors:** Tarmac quarry Products Ltd



Densoband - Project Story

Blackpool Tram - 1996

Application: a flexible joint seal between tram rails and new asphalt wearing course.
Client: Blackpool Borough Council **Contractors:** Tarmac quarry Products Ltd



Denso Paving Tape

Fabric reinforced polymer modified
bitumen membrane for sealing cracks in
asphalt and concrete road pavements
prior to overlaying with asphalt

[Literature](#)

[Project List](#)

[Project Histories](#)

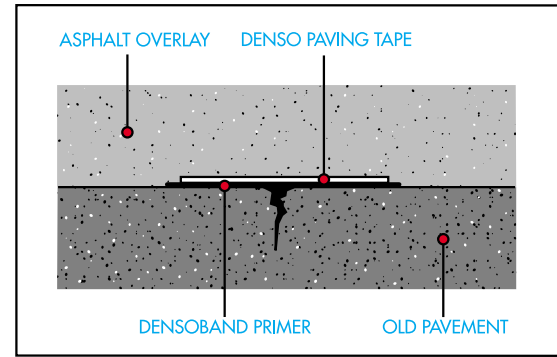
DENSO PAVING TAPE

A cold applied, fabric re-inforced, polymer modified bitumen membrane for sealing cracks up to 5mm wide in asphalt and concrete road pavements prior to overlaying with asphalt. It stops the ingress of water in to the sub base, helping to prevent reflective cracks appearing in the new overlay.

Product Data

Temperature range for application:	8-45°C
Thickness:	1.6
Roll sizes:	100 & 150mm x 10m
Packaging:	12 rolls per ctn, 8 rolls per ctn.

- **Fast installation**
- **Instant seal against water**
- **Helps to retard cracks in new asphalt overlays**
- **Prevents further deterioration of road pavement**
- **Effective on asphalt and concrete**
- **Cold, safe application by roller, applicator or hand**
- **No plant needed**
- **Can be applied by unskilled labour**





PAVING TAPE

INSTRUCTIONS FOR USE

A cold applied, fabric reinforced polymer bitumen strip for use as a waterproof seal over cracks and reflective cracking (up to 5mm wide) on concrete and asphalt road pavements. The tape is applied prior to overlaying with asphalt and provides a waterproof seal which prevents the ingress of water into the sub base thus stopping cracks appearing in the new overlay.

Application

Minimum temperature 8°C. Dry road surface essential.
Maximum crack width 5mm.

Remove dirt and debris from the crack area and surrounding pavement surface.

Using a brush or roller apply Densoband Primer over the crack area, to the width of the tape. See diagram 1. Allow the primer to dry (10-15 minutes).

Apply Denso Paving Tape with the Denso Tape Roller, following the line of the crack as shown in diagram 2. Where abrupt changes in direction occur, cut the tape and start a new section, overlapping by 50mm. The release film is automatically removed onto the lower roller of the machine.

Do not apply primer and tape to a wet surface. Ensure pavement surface is pre-dried using a gas burner.

Tape widths greater than 150mm should be applied by unrolling the tape and pressing into position, using foot pressure to assist adhesion.

Health and Safety Advice

Denso Paving Tape and Densoband Primer contain petroleum products which may affect the skin.

Users are advised to:

1. Avoid using primer in confined areas without air circulation
2. Avoid contact of these materials with face, eyes, arms etc.
3. Wash thoroughly after use or before work breaks to remove compound from the skin.
4. Change soiled clothing.
5. Avoid smoking.

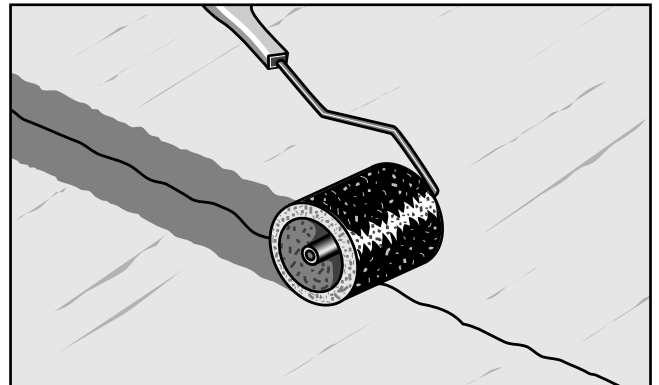


Diagram 1.

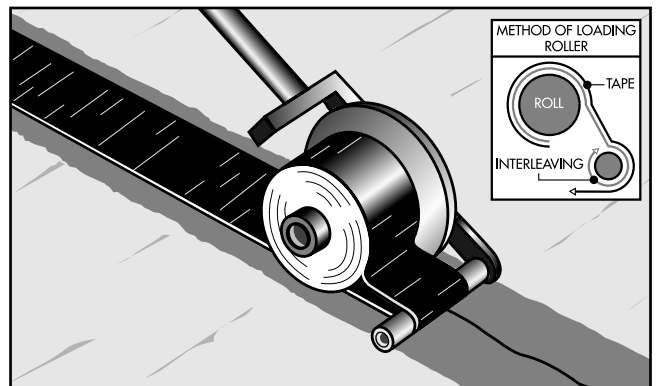


Diagram 2.

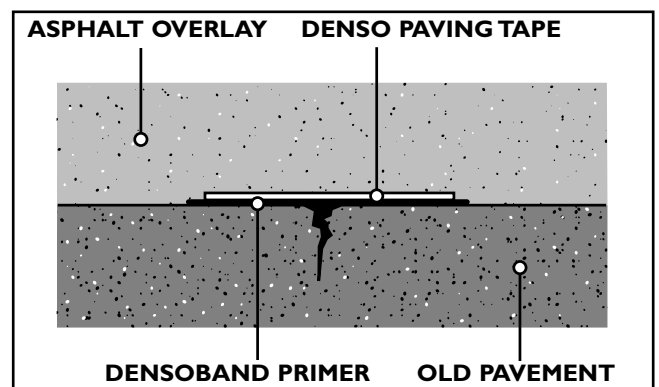


Diagram 3.

Winn & Coales (Denso) Ltd
Denso House, Chapel Road, London SE27 0TR
Tel: 020 8670 7511
Fax: 020 8761 2456



Certificate No. FM 01548
BS EN ISO 9002 1994



DENSO PAVING TAPE

DESCRIPTION A cold applied, fabric reinforced polymer modified bitumen membrane for sealing cracks up to 5mm wide in asphalt or concrete road pavements prior to overlaying with asphalt. It stops the ingress of water into the sub base helping to prevent reflective cracking in the new overlay.

COMPOSITION A synthetic fibre fabric coated with a high tack bitumen based adhesive and having a thin polythene film backing. The adhesive surface is protected by a disposable release film.

TYPICAL PROPERTIES	TEST METHOD	TYPICAL VALUE
Softening Point	IP/58	85°C
Needle Penetration @ 25°C	IP/49	105 dmm
Breaking Strength (Longitudinal)	ASTM D1000	7N/mm
Tear Strength (Transverse)	ASTM D1004	25N
Resistance to Water, Acids, Alkalis and Salts	-	Excellent
Temperature Range for Application	-	8°C to 45°C
Roll Length		10m
Roll Widths		100mm, 150mm
Core Size		63.5mm ID
Thickness		1.60mm
Weight		1.75kg/m ²

PACKING	12 rolls x 100mm/carton 8 rolls x 150mm/carton
----------------	---

RECOMMENDED PRIMER	Densoband Primer
---------------------------	------------------

Important

Winn & Coales (Denso) Ltd pursue a policy to develop and continually improve all of our products and therefore the information given in this data sheet is intended as a general guide and does not constitute a warranty of specification. However, our sales personnel are committed to assist the user in establishing the suitability of the product for its intended purpose and additional specific information is available on request.

Winn & Coales (Denso) Ltd operate a Quality Management System registered to BS EN ISO 9002 1994 (Certificate No. FM01548).

Winn & Coales (Denso) Ltd, Denso House, Chapel Road, London SE27 0TR, United Kingdom
Tel: +44 (0) 20 8670 7511 Fax: +44 (0)20 8761 2456 Email: mail@denso.net Website: www.denso.net

Denso Paving Tape - Project List

Approx Date	Site Address	Client	Contractor	Application
2001	A5 Dunstable	URS Consortium	Lafarge	As seal over seams before overlaying with asphalt base wearing course
1993	A47 Eye By-Pass	Cambridgeshire CC		As seal over concrete carriageway joints prior to resurfacing
1993	Carlesberg Site	Carlesberg Brewery	West Midlands Surfacing	As seal over concrete and asphalt joints prior to resurfacing
1993	A30	Devon CC (DOT)	Constable Hart	To seal reflective cracking prior to asphalt overlay
1993	Congleton Car Park	Congleton Borough Council	Pennington Plant Hire	To seal reflective cracking prior to asphalt overlay
1993	Council Estate Solihull	Solihull Borough Council	DLO	As seam seal over concrete to concrete joints prior to overlay
1993	Huntingdon Stokely Meadows Industrial Estate	Cambridgeshire CC	J Breheney	To seal reflective cracking prior to asphalt overlay
1993	Lymington Town Centre Council Estate	New Forest District Council	B Jeffries Ltd	As crack seal prior to asphalt overlay
1992	A1/M25 Junction	Herts CC (DOT)	Peter Birse	To seal reflective cracking prior to asphalt overlay
1992	Estate Roads in Swadlincote	South Derbyshire Council	South Derbyshire DLO	To seal reflective cracking prior to asphalt overlay
1992	Shawbury	Salop CC	Colon (Colas Roads Division)	For repairs to haunching prior to asphalt overlay
1992	New Norwich Southern By-Pass	Maunsell & Partners DOT	A F Budge	As joint seal on bridge deck prior to resurfacing

Denso Overbanding Tape - Project List

Approx Date	Site Address	Client	Contractor	Application
1993	Derbyshire area	Seven Trent Water Company	SOS Plant Hire	For trench reinstatements
1993	South Humberside	East Midlands Gas	Dewsbury Civil Engineers	For trench reinstatements
1993	County Durham	British Gas Water Utilities	Burke Plc	For trench reinstatements
1993	Humberside	British Gas North Eastern	North Eastern Gas	For trench reinstatements
1993	Motorway Western Area	Warwickshire County Council	DLO	For reinstatements
1992	Bracknell	Bracknell Forest Borough Council	DLO	For reinstatements
1992	Cable Stayed Bridge Dockland	PSC Freyssinet	Own labour	To seal cable sheathing
1992	Carlesberg Brewery Project	Carlesberg Brewery	West Midlands Surfacing	For reinstatements
1992	Coleshill/Dunchurch Depot	Warwickshire CC	Warwickshire (DLO)	For routine reinstatements
1991	Northern area	Humberside CC	Own DLO	For trench reinstatements
1991	Various sites	North Yorkshire CC	Own DLO	For trench reinstatements
1991	Swansea area	Swansea City Council Welsh Water SWEB	Swansea City Council DLO	For trench reinstatements
1991	Various sites	North Yorkshire CC	Own DLO	For trench reinstatements
1991	Various sites	Yorkshire Water Authority	Own labour	For trench reinstatements

Denso Paving Tape - Project Story

M25 Motorway - Potters Bar Section

Application: Sealing cracks in concrete pavement prior to overlaying with hot rolled asphalt.
Client: Hertfordshire County Council

Applying Densoband Primer.



Applying Denso Paving Tape



Denso Paving Tape - Project Story

M1 Motorway - Watford Section

Application: Sealing cracks in road pavements prior to overlaying with hot rolled asphalt.

Client: Hertfordshire County Council

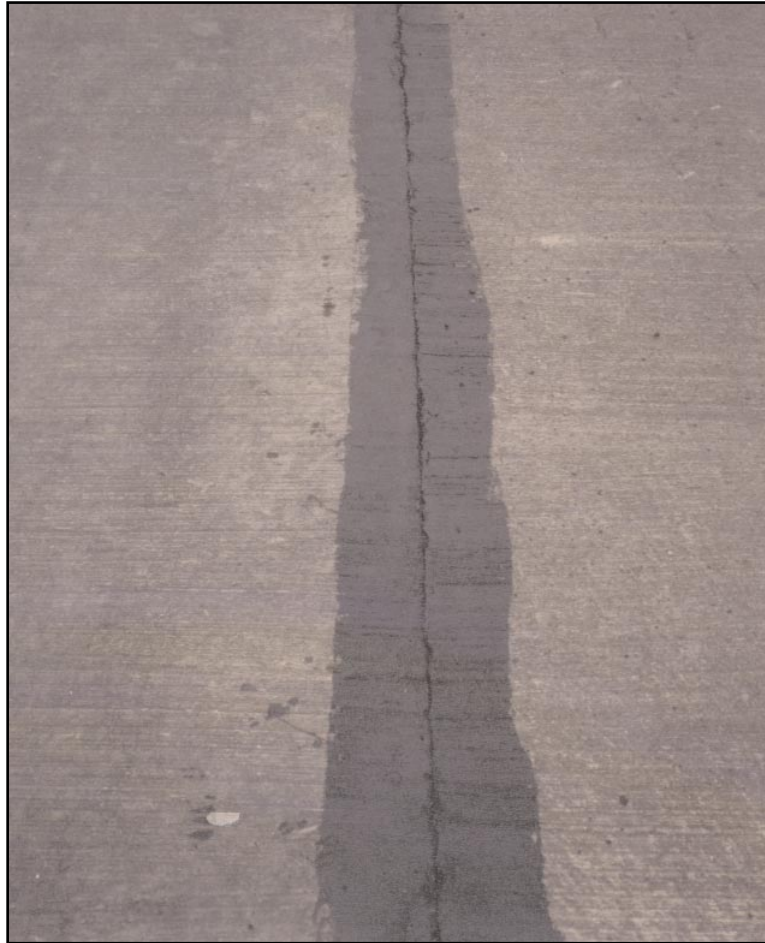


Denso Paving Tape - Project Story

A47 Eye By-Pass

Application: Sealing cracks in reinforced concrete base course prior to overlaying with hot rolled asphalt.

Client: Cambridgeshire County Council



Denso Paving Tape - Project Story

A47 Eye By-Pass

Application: Sealing cracks in reinforced concrete base course prior to overlaying with hot rolled asphalt.

Client: Cambridgeshire County Council



Denso Paving Tape - Project Story

Council Estate Road - Birmingham

Application: Sealing cracks in road pavements prior to overlaying with hot rolled asphalt.

Client: Birmingham City Council **Contractor:** ARC Surfacing Ltd



Denso Paving Tape - Project Story

Council Estate Road - Birmingham

Application: Sealing cracks in road pavements prior to overlaying with hot rolled asphalt.
Client: Birmingham City Council **Contractor:** ARC Surfacing Ltd



Denso Paving Tape - Project Story

Council Estate Road - Birmingham

Application: Sealing cracks in road pavements prior to overlaying with hot rolled asphalt.

Client: Birmingham City Council **Contractor:** ARC Surfacing Ltd



Denso Overbanding Tape

**Polymer modified bituminous sealing strip
for use as an instant waterproof adhesive seal
over cracks or failed reinstatement joints**

Literature

Project List

Project Histories

DENSO OVERBANDING TAPE

A polymer modified bituminous sealing membrane for use as an instant waterproof adhesive seal over cracks or failed reinstatement joints (up to 5mm wide) on road pavements on secondary roads. The application of the tape prevents the ingress of water which causes cracking and severe fretting leading to the eventual breakdown of the asphalt pavement. The skid resistance can be increased by covering the tape with granite dust to a maximum size of 3mm with a polished stone value similar to the existing road surface.

Product Data

Temperature range for application:	8-45°C
Thickness:	2mm
Roll sizes:	30,40 & 50mm x 10m
Packaging:	20 rolls per ctn, 16 rolls per ctn

The Densoband Overbanding Tape Applicator is available on request.



- **Instant seal against water ingress**
- **Traffic can pass over immediately**
- **Elastic properties accommodate thermal movement**
- **Prevents further deterioration of the pavement**
- **Fast installation**
- **Effective on asphalt or concrete**



LEADERS IN SEALING PRODUCTS

OVERBANDING TAPE

INSTRUCTIONS FOR USE

Description

A polymer modified bituminous strip for use as an instant waterproof adhesive seal over cracks or failed reinstatement joints up to 5mm wide, on road pavements on secondary roads. The application of the tape prevents the ingress of water which causes cracking and severe fretting leading to the eventual breakdown of the asphalt pavement. The skid resistance can be increased by covering the tape with granite dust to a maximum size of 3mm providing a polished stone value similar to the existing road surface.

Application:

- Remove dirt and debris from the cracks and surrounding road surface using a stiff broom or brush.
- Ensure that the road surface is dry. If necessary use a gas burner to dry the cracks and surrounding area.
- Apply Denso Overbanding Tape by hand or application roller following the line of the crack. When the crack is covered cut off from the roll and press the tape down thoroughly e.g. using hand or foot pressure. Remove the interleaving film from the tape. Where abrupt changes in direction occur, cut the tape and start a new section overlapping the end of the previous section by 50mm.

Application by hand

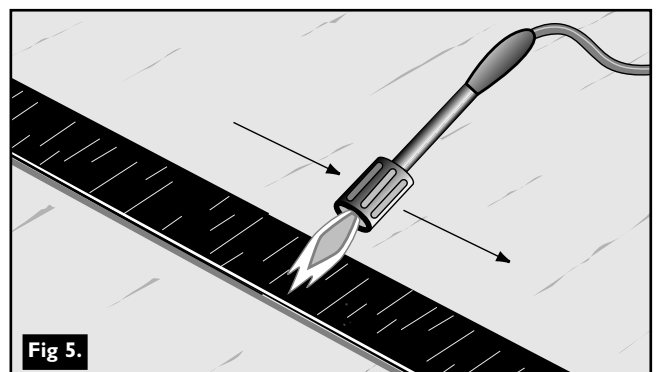
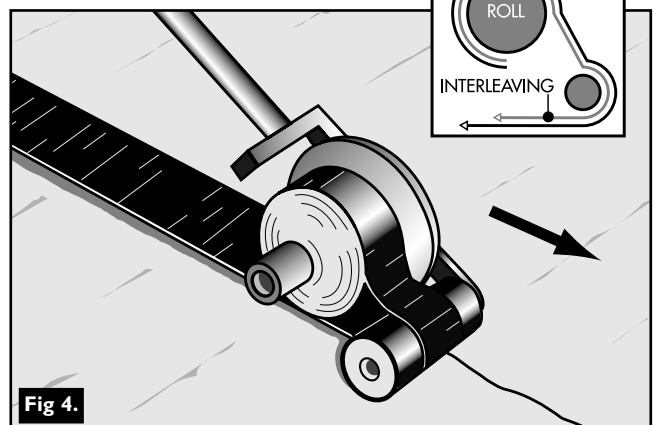
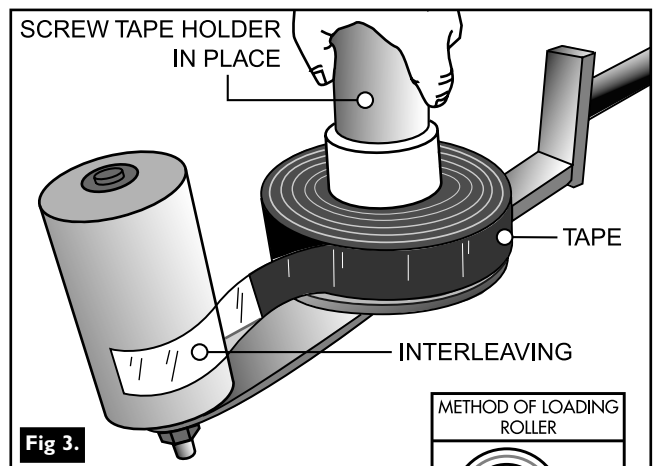
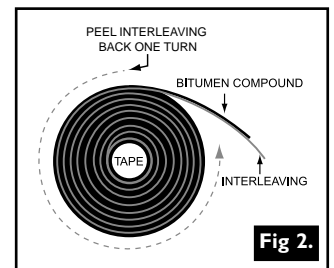
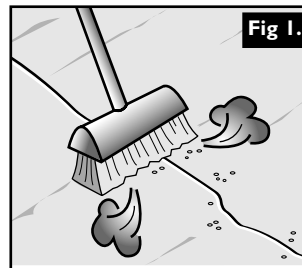
Peel back the interleaving film from the end of the roll and unwind it for one turn to expose the bitumen compound (as Fig 2). Apply the tape over the crack (as above). Press the tape down thoroughly and remove the interleaving.

Application by Tape Application Roller:

Fit the roll of tape onto the roll holder (as Fig 3) and screw the knurled nut clockwise to secure the roll in place.

Peel back the interleaving film from the end of the roll and unwind it for one turn to expose the bitumen compound (as Fig 2). Pass the tape around the application roller (as Fig 3). Push the roller along the line of the crack as shown (as Fig 4) to apply the tape centrally over the crack. Press the tape down thoroughly and remove the interleaving.

- In cold damp conditions apply a gas burner to warm the tape to improve adhesion to the road surface (Fig 5).
- Where required apply granite dust to improve the skid resistance. Traffic may flow immediately.



Winn & Coales (Denso) Ltd

Denso House, Chapel Road, London SE27 0TR

Tel: 020 8670 7511 Fax: 020 8761 2456

Email: mail@denso.net

Website: www.denso.net



Certificate No. FM 01548
BS EN ISO 9002 1994



DENSO OVERBANDING TAPE

DESCRIPTION A cold applied bituminous tape for surface sealing of open seams or cracks up to 5mm width in road pavements on secondary roads.

COMPOSITION A blend of polymer modified bitumen in tape form, protected by a disposable release film.

TYPICAL PROPERTIES	DATA
Softening Point	120°C
Resistance to Water, Acids, Alkalis and Salts	Excellent
Temperature Range for Application	8°C to 45°C
Temperature Range for Service	-20°C to 80°C
Roll Length	10m
Width	30mm, 40mm, 50mm
Core Size	76mm I.D.
Thickness	1.9mm

PACKING	24 (30mm), 20 (40mm), 16 (50mm) rolls per carton
----------------	--

RECOMMENDED PRIMER	Densoband Primer
---------------------------	------------------

Important

Winn & Coales (Denso) Ltd pursue a policy to develop and continually improve all of our products and therefore the information given in this data sheet is intended as a general guide and does not constitute a warranty of specification. However, our sales personnel are committed to assist the user in establishing the suitability of the product for its intended purpose and additional specific information is available on request.

Winn & Coales (Denso) Ltd operate a Quality Management System registered to BS EN ISO 9002 1994 (Certificate No. FM01548).

Winn & Coales (Denso) Ltd, Denso House, Chapel Road, London SE27 0TR, United Kingdom
Tel: +44 (0) 20 8670 7511 Fax: +44 (0)20 8761 2456 Email: mail@denso.net Website: www.denso.net

Denso Overbanding Tape - Project List

Approx Date	Site Address	Client	Contractor	Application
2002	North Wales	PGS Atlantic Power	K.M. construction	Sealing sewage manhole covers
2000	Birmingham & Liverpool	Moywest Ltd	Moywest Ltd	To seal asphalt joints after cable instalations
1999	Aberdeen City	Aberdeen City Council	Aberdeen City Council	To seal reinstatement joints after water and sewage repairs
1993	Dunchurch Depot	Warwickshire CC	Warwickshire CC (DLO)	For routine reinstatements
1993	Wisbeach Quay	Wisbeach District Council	Wrekin Construction	For reinstatements in the asphalt quay
1993	Dunchurch Depot	Warwickshire CC	Warwickshire CC (DLO)	For routine reinstatements
1993	Coleshill/Dunchurch Depot	Warwickshire CC	Warwickshire (DLO)	For routine reinstatements
1993	South Humberside	British Gas East Midlands	East Midlands Gas (DLO)	For trench reinstatements
1993	Derbyshire area	Severn Trent Water Company	Kennedy Construction Ltd	For routine reinstatements
1993	South Humberside	British Gas East Midlands	East Midlands Gas (DLO)	For trench reinstatements
1993	Bracknell Town Centre Car Park	Bracknell Borough Council	Surrey Resurfacing Construction Ltd	Sealing reflective cracking in old car park
1993	Derbyshire area	Severn Trent Water Company	SOS Plant	For trench reinstatements
1993	Temple Court Development Birmingham	Tarmac Refurb	Tarmac Construction	For sealing reflective cracks in asphalt road surface
1993	South Yorkshire	British Gas Water Utilities	Burke Plc	For trench reinstatements
1993	South Humberside	British Gas East Midlands	East Midlands Gas	For trench reinstatements

Denso Overbanding Tape - Project List

Approx Date	Site Address	Client	Contractor	Application
1993	Derbyshire area	Seven Trent Water Company	SOS Plant Hire	For trench reinstatements
1993	South Humberside	East Midlands Gas	Dewsbury Civil Engineers	For trench reinstatements
1993	County Durham	British Gas Water Utilities	Burke Plc	For trench reinstatements
1993	Humberside	British Gas North Eastern	North Eastern Gas	For trench reinstatements
1993	Motorway Western Area	Warwickshire County Council	DLO	For reinstatements
1992	Bracknell	Bracknell Forest Borough Council	DLO	For reinstatements
1992	Cable Stayed Bridge Dockland	PSC Freyssinet	Own labour	To seal cable sheathing
1992	Carlesberg Brewery Project	Carlesberg Brewery	West Midlands Surfacing	For reinstatements
1992	Coleshill/Dunchurch Depot	Warwickshire CC	Warwickshire (DLO)	For routine reinstatements
1991	Northern area	Humberside CC	Own DLO	For trench reinstatements
1991	Various sites	North Yorkshire CC	Own DLO	For trench reinstatements
1991	Swansea area	Swansea City Council Welsh Water SWEB	Swansea City Council DLO	For trench reinstatements
1991	Various sites	North Yorkshire CC	Own DLO	For trench reinstatements
1991	Various sites	Yorkshire Water Authority	Own labour	For trench reinstatements

Denso Overbanding Tape - Project Story

Housing Estate - North Derbyshire

Application: Sealing over joints around reinstatements using gas torch flame for conformability.

Client: Severn Trent Water **Contractor:** SOS Plant Hire



HIGHWAY MAINTENANCE
PRODUCTS



HIGHWAY MAINTENANCE
PRODUCTS

Denso Overbanding Tape - Project Story

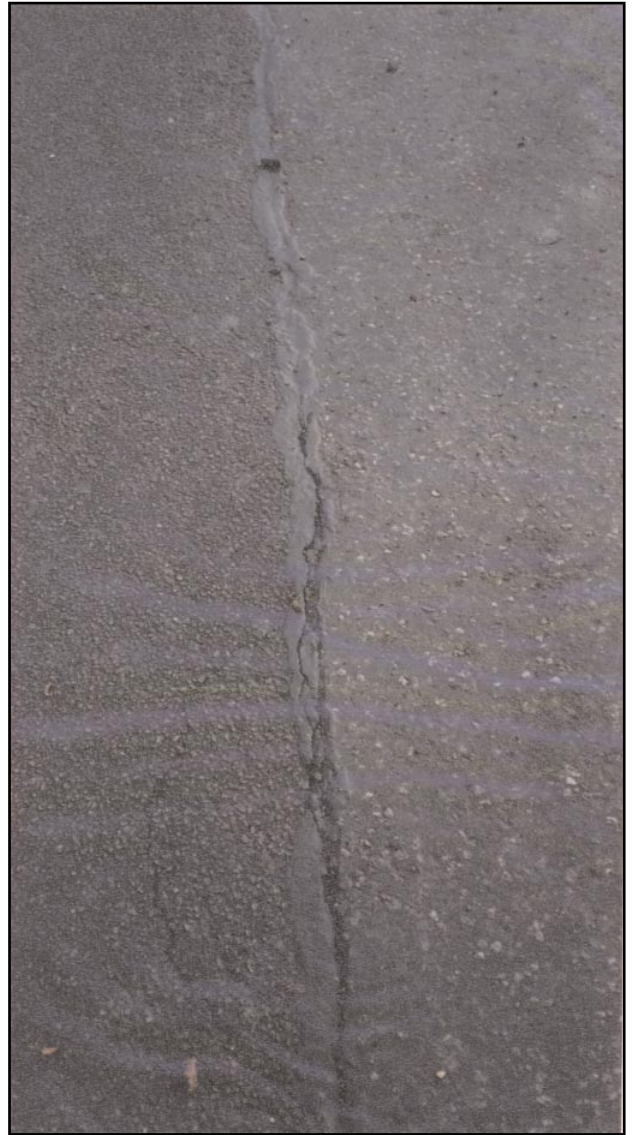
A1301 Junction - Inspection

Application: Sealing cracks in asphalt wearing course at road junction using Denso Overbanding Tape and for comparison, traditional hot poured bitumen, both applied at same date.

Denso Overbanding Tape



Traditional hot poured bitumen



Denso Overbanding Tape - Project Story

North Wales - Sewage Manhole Reinstatements

Application: Sealing the edges of several hundred sewage manhole reinstatements for PGS Atlantic Power who operate the sewage network maintenance contract for Welsh Water in the North Wales area.



1. A new reinstatement ready for the application of Denso Overbanding Tape.



2. Denso Overbanding Tape is positioned over the joint between the new asphalt reinstatement and the existing road wearing course.

Denso Overbanding Tape - Project Story

North Wales - Sewage Manhole Reinstatements

Application: Sealing the edges of several hundred sewage manhole reinstatements for PGS Atlantic Power who operate the sewage network maintenance contract for Welsh Water in the North Wales area.



3. A gas flame is quickly passed over the Denso Overbanding Tape to fuse it into the joint surface.



4. A finished reinstatement showing joint effectively sealed.

Densoband Primers

Specially formulated primers for use with
Denso Highway Maintenance Products

Literature

Technical Data

DENSOBAND PRIMERS

Specially formulated primers for preparing the surface of concrete, asphalt or steel for the application and good adhesion of Denso bitumen products. Densoband Clear Primer has been developed to provide an inconspicuous coating on concrete where appearance is important.

Drying time: Typically 10-15 min dependent on temperature and air movement.

Flash point: 23°C - Densoband Primer
0°C - Densoband Clear Primer

Container: 5 litre, 25 litre tins

Coverage per litre: (dependent on porosity of joint face)	
Densoband	150 lin metre
Denso Overbanding Tape	150 lin metre x 50mm width
Denso Paving Tape	75 lin metre x 100mm width



DENSOBAND PRIMER

DESCRIPTION A fast drying bitumen based primer for all surfaces prior to the application of Densoband, Denso Overbanding Tape and Denso Paving Tape.

COMPOSITION Oxidised bitumen in aliphatic and aromatic hydrocarbon solvents

TYPICAL PROPERTIES	DATA
Specific Gravity	0.940
Covering Capacity	7-8m ² /litre (1 litre per 150m x 50mm)
Wet Film Thickness	125-140 micron
Dry Film Thickness	70-80 micron
Drying Time	10-15 minutes
Flashing Point	23°C minimum
Application Temperature Range	0°C to 55°C

SURFACE PREPARATION	Surfaces must be dry and free from dust and loose material. Sweep or brush well before applying primer.
----------------------------	---

PACKING	5 litre and 25 litre metal containers
----------------	---------------------------------------

Important

Winn & Coales (Denso) Ltd pursue a policy to develop and continually improve all of our products and therefore the information given in this data sheet is intended as a general guide and does not constitute a warranty of specification. However, our sales personnel are committed to assist the user in establishing the suitability of the product for its intended purpose and additional specific information is available on request.

Winn & Coales (Denso) Ltd operate a Quality Management System registered to BS EN ISO 9002 1994 (Certificate No. FM01548).

Winn & Coales (Denso) Ltd, Denso House, Chapel Road, London SE27 0TR, United Kingdom
Tel: +44 (0) 20 8670 7511 Fax: +44 (0)20 8761 2456 Email: mail@denso.net Website: www.denso.net



DENSO CLEAR PRIMER

DESCRIPTION A clear, fast drying rubber/resin based primer for iron, steel, concrete or asphalt surfaces prior to the application of Tokstrip, Densoband, Denso Overbanding Tape and other bitumen based products to give a cleaner final appearance.

COMPOSITION Blend of rubber and resins in aromatic hydrocarbon solvent. It contains a pink dye to indicate where it is applied which fades in sunlight.

TYPICAL PROPERTIES	DATA
Colour	Clear Pink
Specific Gravity	0.9
Covering Capacity	6-8m ² /litre
Drying Time	10-15 minutes
Flash Point	23°C MIN
Application Temperature Range	5°C to 50°C

SURFACE PREPARATION	Surfaces to be clean, dry and free from dust laitance etc. Sweep or brush well before applying primer.
----------------------------	--

APPLICATION METHOD	Brush or roller.
---------------------------	------------------

CLEANING SOLVENT	White Spirit or Xylene
-------------------------	------------------------

PACKING	5 litre tins or 25 litre drums
----------------	--------------------------------

Important

Winn & Coales (Denso) Ltd pursue a policy to develop and continually improve all of our products and therefore the information given in this data sheet is intended as a general guide and does not constitute a warranty of specification. However, our sales personnel are committed to assist the user in establishing the suitability of the product for its intended purpose and additional specific information is available on request.

Winn & Coales (Denso) Ltd operate a Quality Management System registered to BS EN ISO 9002 1994 (Certificate No. FM01548).

Winn & Coales (Denso) Ltd, Denso House, Chapel Road, London SE27 0TR, United Kingdom
Tel: +44 (0) 20 8670 7511 Fax: +44 (0)20 8761 2456 Email: mail@denso.net Website: www.denso.net